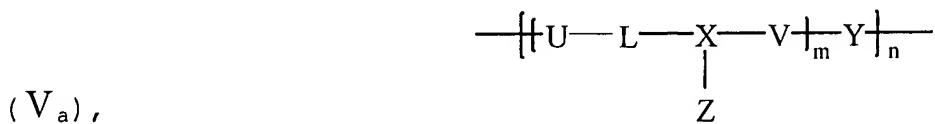


**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

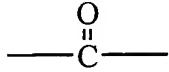
1. (Original) A biodegradable cationic polymer, which has amino groups in a backbone and side chains for delivering nucleic acids into a cell, and a formula (V<sub>a</sub>) of the biodegradable cationic polymer shown as below:



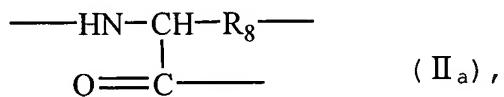
wherein

U is (R<sub>1</sub>—O)<sub>d</sub>, in which R<sub>1</sub> is a C<sub>2</sub>—C<sub>20</sub> alkylene or substituted alkylene radical, d is an integer of 4 to 200,

L is



X is an amino acid group containing additional amino or amide group of the formula (II<sub>a</sub>):



in which R<sub>8</sub> is selected from the group consisting of —CH<sub>2</sub>CONH<sub>2</sub>—,

—CH<sub>2</sub>CH<sub>2</sub>CONH<sub>2</sub>—, and —CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>—,

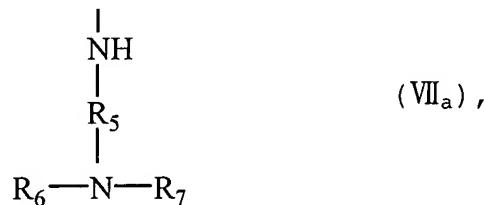
V is —COO—,

Y is an amino group of the formula (VI<sub>a</sub>) :



in which R<sub>2</sub> is hydrogen or C<sub>1</sub>-C<sub>20</sub> alkyl radical, R<sub>3</sub> and R<sub>4</sub> is the same C<sub>1</sub>-C<sub>20</sub> alkylene radical,

Z is an another amino group of the formula (VII<sub>a</sub>) :



in which R<sub>5</sub> is C<sub>2</sub>-C<sub>20</sub> alkylene radical, R<sub>6</sub> and R<sub>7</sub> are the same or different C<sub>1</sub>-C<sub>5</sub> alkyl radicals,

m is an integer of 1 to 10, and

n is an integer of 1 to 20.

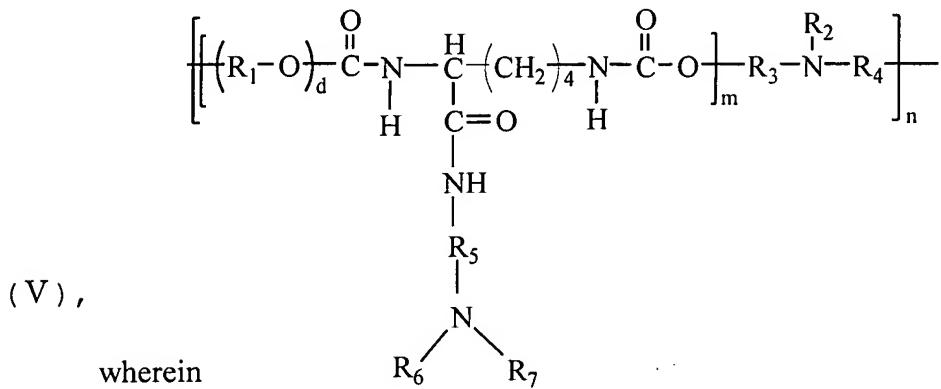
2. (Original) The biodegradable cationic polymer of claim 1, wherein R<sub>1</sub> is selected from the group consisting of C<sub>2</sub>-C<sub>5</sub> alkylene radicals.

3. (Original) The biodegradable cationic polymer of claim 2, wherein R<sub>1</sub> is ethylene radical, d is an integer of 4 to 200.

4. (Original) The biodegradable cationic polymer of claim 2, wherein R<sub>1</sub> is propylene radical, d is an integer of 9 to 34.

5. (Currently Amended) The biodegradable cationic polymer of claim 1, wherein X is ~~preferably~~ -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> -.

6. (Original) A biodegradable cationic polymer, which has amino groups in a backbone and side chains for delivering nucleic acids into a cell, and a formula (V) of the biodegradable cationic polymer shown as below:



$\text{R}_1$  is a  $\text{C}_2\text{-}\text{C}_{20}$  alkylene or substituted alkylene radical,  $d$  is an integer of 4 to 200,

$\text{R}_2$  is hydrogen or  $\text{C}_1\text{-}\text{C}_{20}$  alkyl radical,

$\text{R}_3$  and  $\text{R}_4$  is the same  $\text{C}_1\text{-}\text{C}_{20}$  alkylene radical,

$\text{R}_5$  is  $\text{C}_2\text{-}\text{C}_{20}$  alkylene radical,

$\text{R}_6$  and  $\text{R}_7$  is the same or different  $\text{C}_1\text{-}\text{C}_5$  alkyl radical,

$m$  is an integer of 1 to 10, and

$n$  is an integer of 1 to 20.

7. (Original) The biodegradable cationic polymer of claim 6, wherein  $\text{R}_1$  is selected from the group consisting of  $\text{C}_2\text{-}\text{C}_5$  alkylene radicals.

8. (Original) The biodegradable cationic polymer of claim 7, wherein  $\text{R}_1$  is ethylene radical,  $d$  is an integer of 4 to 200.

9. (Original) The biodegradable cationic polymer of claim 7, wherein the  $\text{R}_1$  is propylene radical,  $d$  is an integer of 9 to 34.

10-39. (Cancelled)